

BIDDING SCHEDULE

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
0001.	Mobilization and Demobilization	1	LS		\$ _____
0002.	Clearing, Grubbing and Stripping	1	LS		_____
0003.	Old Ferry Road Reconstruction	1	LS		_____
0004.	Boat Ramp Access Road	1	LS		_____
0005.	Exterior Berm	1	LS		_____
0006.	Site 1 Drainage Structure	1	LS		_____
0007.	Site 1 Approach Channel Excavation	1	LS		_____
0008.	Site 2 Pump Station and Drainage Structure	1	LS		_____
0009.	Site 3 Pump Station	1	LS		_____
0010.	Sites 2 and 7 Approach Channel Excavation	1	LS		_____
0011.	Site 6 Drainage Structure	1	LS		_____
0012.	Site 6 Access Road	1	LS		_____
0013.	Site 7 Drainage Structure	1	LS		_____
0014.	Site 11 Drainage Structure	1	LS		_____
0015.	County Road HH Construction	1	LS		_____
0016.	Swan Lake Sites 2 and 3 Stoplog Hoists	1	LS		_____
0017.	Seeding	23	AC		_____
0018.	Portable Fuel Tank	2	EA	_____	_____
0019.	Portable Hydraulic Power Units	2	EA	_____	_____
0020.	Diesel Engine Pump Drive Units	2	EA	_____	_____
0021.	Riprap, B-Stone				
	a. First 7000 tons	7000	TN	_____	_____
	b. All over 7000 tons	1000	TN	_____	_____
0022.	Riprap, C-Stone				
	a. First 16,000 tons	16,000	TN	_____	_____
	b. All over 16,000 tons	3850	TN	_____	_____

# BIDDING SCHEDULE

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
0023.	Bedding Material				
	a. First 8000 tons	8000	TN	_____	_____
	b. All over 8000 tons	1560	TN	_____	_____
0024.	Geogrid				
	a. First 10,000 square yards	10,000	SY	_____	_____
	b. All over 10,000 square yards	3000	SY	_____	_____
0025.	Silt Filter Fence				
	a. First 2500 lineal feet	2500	LF	_____	_____
	b. All over 2500 lineal feet	880	LF	_____	_____
0026.	Crushed Stone Surface Course				
	a. First 5000 tons	5000	TN	_____	_____
	b. All over 5000 tons	1850	TN	_____	_____
0027.	Crushed Stone Base Course				
	a. First 1000 tons	1000	TN	_____	_____
	b. All over 1000 tons	300	TN	_____	_____
0028.	Geotextile				
	a. First 3,000 square yards	3,000	SY	_____	_____
	b. All over 3,000 square yards	1,000	SY	_____	_____
<b><u>OPTIONAL BID ITEM</u></b>					
0029.	Site 12 Concrete Ramp	1	LS		_____

## ABBREVIATIONS

LS Lump Sum  
 EA Each  
 CY Cubic Yard  
 TN Tons  
 AC Acre

TOTAL \$ \_\_\_\_\_

(SEE BIDDING SCHEDULE NOTES)

## BIDDING SCHEDULE NOTES

1. All quantities shown on the BIDDING SCHEDULE are estimated quantities except when the unit is shown as lump sum "LS".

2. When bids are solicited on a unit price basis, bidders shall insert in the spaces provided therefor in the SCHEDULE both the "unit price" and the "estimated amount" resulting from applying the said unit price to the estimated quantity shown. In event the bidder quotes only a total price ("estimated amount") in its bid and fails to quote the unit price, the Government will determine such unit price by dividing the total price quoted by the quantity of the item set out in the SCHEDULE. The bidder agrees that the unit price so determined shall be used for the purpose of bid evaluation, award and all payments to the Contractor including final payment.

3. All extensions of the unit prices shown will be subject to verification by the Government. In case of variation between the unit price and the extension, the unit price will be considered to be the bid and the extension will be corrected accordingly.

4. If a modification to a bid based on unit prices is submitted, which provides for a lump sum adjustment to the total estimated cost, the application of the lump sum adjustment to each unit price in the bid schedule must be stated. If it is not stated, the bidder agrees that the lump sum adjustment shall be applied on a pro rata basis to every unit price in the bid schedule.

5. Bidders are required to bid on all items listed on the Bidding Schedule in addition to inserting a total quoted bid in the appropriate space provided. Failure to do so will be considered good cause to disqualify the bid.

6. Bidders are encouraged to pay particular attention to the requirements on lab "validation" in Section 01440 of the contract specifications.

7. EVALUATION OF SUBDIVIDED ITEMS (MAR 1995) EFARS 52.212-5000 Item Nos. 0021 thru 0028 are subdivided into two or more estimated quantities and are to be separately priced. The Government will evaluate these items on the basis of total price of their sub-items.

8. VARIATIONS IN ESTIMATED QUANTITIES - SUBDIVIDED ITEMS. (MAR 1995) EFARS 52.212-5001. This variations in estimated quantities clause is applicable only to Item Nos. 0021 thru 0028.

(a) Variation from the estimated quantity in the actual work performed under any second or subsequent subitem or elimination of all work under such a second or subsequent subitem will not be the basis for an adjustment in contract unit price.

(b) Where the actual quantity of work performed for Item Nos. 0021 thru 0028 is less than 85 percent of the quantity of the first subitem listed under such item, the Contractor will be paid at the contract unit price for that subitem for the actual quantity of work performed, and, in addition, an equitable adjustment shall be made in accordance with the Contract Clause FAR 52.211-18, Variation in Estimated Quantities.

(c) If the actual quantity of work performed under Item Nos. 0021 thru 0028 exceeds 115 percent or is less than 85 percent of the total estimated quantity of the subitems under that item, and/or if the quantity of work performed under the second subitem or any subsequent subitem under Item Nos. 0021 thru 0028 exceeds 115 percent or is less than 85 percent of the estimated quantity of any such subitem, and if such variation causes an increase or a decrease in the time required for performance of this contract, the contract completion time will be adjusted in accordance with the Contract Clause FAR 52.211-18, Variation in Estimated Quantities.

9. OPTIONAL BID ITEMS.

Bid Item No. 0029 is an OPTIONAL ITEM. Upon the review of inspection at the site, the Contracting Officer, in accordance with the specifications and drawings, will direct the Site 12 Concrete Ramp optional bid item as needed. The Contractor shall perform the appropriate work ONLY when directed by the Contracting Officer. The Government is not obligated to request any work under any optional item(s). The bid prices for each optional item shall represent your firm price to perform that service. Payment will be made ONLY for work actually requested and performed to the Government's satisfaction.

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## SECTION 01025

### MEASUREMENT AND PAYMENT

#### PART 1 GENERAL

1.1 SUBMITTALS. Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

a. Scale Certification. Certify scale accuracy before using to measure riprap.

b. Data. Weight Certificates. Submit certified weight certificates for riprap and aggregate surface course.

c. Survey Data for exterior berm with quantity calculations.

1.2 MOBILIZATION AND DEMOBILIZATION. Mobilization and demobilization will not be measured for payment. Payment for costs associated with mobilization and demobilization will be made at the contract lump sum price for "Mobilization and Demobilization", as defined in Section 00700, contract clause, PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

1.3 CLEARING, GRUBBING, AND STRIPPING. Payment for clearing, grubbing and stripping will be made at the contract lump sum price for "Clearing, Grubbing, and Stripping", which price and payment shall constitute full compensation for the costs of all work associated with clearing, grubbing and stripping as specified in Section 02110 CLEARING, GRUBBING, AND STRIPPING and as shown on the drawings.

1.4 OLD FERRY ROAD RECONSTRUCTION. Payment for the Old Ferry Road Reconstruction from Station 1+55 to approximate station 17+00, will be made at the contract lump sum price for "Old Ferry Road Reconstruction", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for reconstructing the road, including excavation, grading, fill, subgrade preparation, and other miscellaneous work, as specified in Sections 02212 IMPERVIOUS EMBANKMENT, and 02220 EXCAVATION; and as shown on the drawings.

1.5 BOAT RAMP ACCESS ROAD. Payment for the Boat Ramp Access Road from Station 200+00 to 209+41, will be made at the contract lump sum price for "Boat Ramp Access Road", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the road, including excavation, grading, fill, subgrade preparation, and other miscellaneous work, as specified in Sections 02212 IMPERVIOUS EMBANKMENT, and 02220 EXCAVATION; and as shown on the drawings.

1.6 EXTERIOR BERM. Payment for the Exterior Berm from approximate Stations 17+00 to 27+00, 30+00 to 59+00, 64+22 to 81+20, and 85+00 to 90+00, will be made at the contract lump sum price for "Exterior Berm", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the exterior berm, including excavation, hauling, grading, embankment, culvert pipe, subgrade preparation, geomembrane, gates, and other miscellaneous work, as specified in

Sections 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02372 GEOMEMBRANE, 02610 CULVERT PIPE, 02831 CHAIN LINK FENCING AND ROAD GATES, and 15201 DUCKBILL CHECK VALVES; and as shown on the drawings.

1.7 SITE 1 DRAINAGE STRUCTURE. Payment for the drainage structure at Site 1, Station 28+50 to 30+00, will be made at the contract lump sum price for "Site 1 Drainage Structure", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the drainage structure at Site 1, including excavation, cofferdams, dewatering, demolishing existing building slab, fill, formwork, reinforced concrete, precast concrete, sluice gates, sheet piles, H-piles, jib crane, structural steel, stoplogs, grating, appurtenances, backfill, subgrade preparation, guard rail, staff gage, and other miscellaneous work, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL, 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02411 METAL SHEET PILING, 02456 STEEL H-PILES, 02840 STEEL GUARDRAIL, 03308 CONCRETE, 03410 PLANT-PRECAST AND PRECAST PRESTRESSED STRUCTURAL CONCRETE, 05101 METALWORK MATERIALS, FABRICATION, AND MISCELLANEOUS PROVISIONS, 13310 STAFF GAGE, 14629 STOPLOG HOISTS, 15100 SLUICE GATES, and 15300 JIB CRANE; and as shown on the drawings.

1.8 SITE 1 APPROACH CHANNEL EXCAVATION. Payment for the approach channel excavation to Site 1 from Station 600+00 to 615+63, will be made at the contract lump sum price for "Site 1 Approach Channel Excavation", which price and payment shall constitute full compensation for all costs associated with furnishing equipment and labor for constructing the approach channel to Site 1, including excavation, cofferdams, dewatering, hauling, disposal of excavated material in an approved manner, and other miscellaneous work, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL and 02220 EXCAVATION and as shown on the drawings.

1.9 SITE 2 PUMP STATION AND DRAINAGE STRUCTURE. Payment for the pump station and drainage structure at Site 2, Station 59+00 to 64+22, will be made at the contract lump sum price for "Site 2 Pump Station and Drainage Structure", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the structure at Site 2, including excavation, cofferdams, dewatering, fill, sheet pile walls, steel H-piles, structural steel, reinforced concrete, precast concrete, pump, jack shaft, discharge pipe, duckbill valve, appurtenances, backfill, subgrade preparation, sluice gates, guard rail, bollards, staff gage, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL, 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02411 METAL SHEET PILING, 02457 STEEL PIPE PILES, 02840 GUARDRAIL, 03308 CONCRETE, 03410 PLANT-PRECAST AND PRECAST PRESTRESSED STRUCTURAL CONCRETE, 05101 METALWORK MATERIALS, FABRICATION, AND MISCELLANEOUS PROVISIONS, 13310 STAFF GAGE, 15100 SLUICE GATES, 15131 PUMPS, 15200 DISCHARGE PIPE AND APPURTENANCES, and 15201 DUCKBILL CHECK VALVES; and as shown on the drawings.

1.10 SITE 3 PUMP STATION. Payment for the pump station and drainage structure at Site 3, Station 81+20 to 85+00, will be made at the contract lump sum price for "Site 3 Pump Station", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the structure at Site 3, including excavation, cofferdams, dewatering, fill, sheet pile walls, steel pipe piles, structural steel, reinforced concrete, pump, jack shaft, discharge pipe, duckbill valve, appurtenances, backfill, subgrade preparation, guard rail, bollards, staff gage, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL, 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02411 METAL SHEET PILING, 02457



STEEL PIPE PILES, 02840 GUARDRAIL, 03308 CONCRETE, 05101 METALWORK MATERIALS, FABRICATION, AND MISCELLANEOUS PROVISIONS, 13310 STAFF GAGE, 15100 SLUICE GATES, 15131 PUMPS, 15200 DISCHARGE PIPE AND APPURTENANCES, and 15201 DUCKBILL CHECK VALVES; and as shown on the drawings.

1.11 SITES 2 AND 7 APPROACH CHANNEL EXCAVATION. Payment for the approach channel excavation to Sites 2 and 7, Station 400+00 to 409+93 and 500+00 to 510+74, will be made at the contract lump sum price for "Sites 2 and 7 Approach Channel Excavation", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the approach channels to Sites 2 and 7, including subaqueous excavation of Chickahominy, Royale, and Silver Lakes, disposal of excavated material in an approved manner, and other miscellaneous work, as specified in Section 02220 EXCAVATION and as shown on the drawings.

1.12 SITE 6 DRAINAGE STRUCTURE. Payment for the stoplog and sluice gate drainage structure at Site 6 from Station 200+99 to 202+20, will be made at the contract lump sum price for "Site 6 Drainage Structure", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the drainage structure at Site 6, including excavation, cofferdams, dewatering, fill, formwork, reinforced concrete, stoplogs, sheet pile walls, precast concrete, precast drainage structures, sluice gates, grating, jib crane, structural steel, appurtenances, backfill, subgrade preparation, and other miscellaneous work, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL, 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02411 METAL SHEET PILING, 02631 DRAINAGE STRUCTURES, 03308 CONCRETE, 03410 PLANT-PRECAST AND PRECAST PRESTRESSED STRUCTURAL CONCRETE, 05101 METALWORK MATERIALS, FABRICATION, AND MISCELLANEOUS PROVISIONS, 14629 STOPLOG HOISTS, 15100 SLUICE GATES, and 15300 JIB CRANE; and as shown on the drawings.

1.13 SITE 6 ACCESS ROAD. Payment for the Site 6 Access Road from approximate Station 200+80 to 200+99 and 202+00 to 209+36, will be made at the contract lump sum price for "Site 6 Access Road", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the road, including excavation, hauling, grading, fill, subgrade preparation, and other miscellaneous work, as specified in Section 02212 IMPERVIOUS EMBANKMENT; and as shown on the drawings.

1.14 SITE 7 DRAINAGE STRUCTURE. Payment for the stoplog drainage structure at Site 7, will be made at the contract lump sum price for "Site 7 Drainage Structure", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the drainage structure at Site 7, including excavation, cofferdams, dewatering, fill, formwork, reinforced concrete, precast concrete, sheet piles, H-piles, jib crane, structural steel, stoplogs, grating, appurtenances, backfill, subgrade preparation, staff gages, and other miscellaneous work, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL, 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02411 METAL SHEET PILING, 02456 STEEL H-PILES, 02840 STEEL GUARDRAIL, 03308 CONCRETE, 03410 PLANT-PRECAST AND PRECAST PRESTRESSED STRUCTURAL CONCRETE, 05101 METALWORK MATERIALS, FABRICATION, AND MISCELLANEOUS PROVISIONS, 13310 STAFF GAGE, 14629 STOPLOG HOISTS, and 15300 JIB CRANE; and as shown on the drawings.

1.15 SITE 11 DRAINAGE STRUCTURE. Payment for the stoplog drainage structure at Site 11, will be made at the contract lump sum price for "Site 11

Drainage Structure", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the drainage structure at Site 11, including excavation, cofferdams, dewatering, fill, formwork, reinforced concrete, stoplogs, sheet pile walls, H-piles, precast concrete, jib crane, structural steel, appurtenances, backfill, subgrade preparation, staff gages, and other miscellaneous work, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL, 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02411 METAL SHEET PILING, 02456 STEEL H-PILES, 03308 CONCRETE, 03410 PLANT-PRECAST AND PRECAST PRESTRESSED STRUCTURAL CONCRETE, 05101 METALWORK MATERIALS, FABRICATION, AND MISCELLANEOUS PROVISIONS, 13310 STAFF GAGE, 14629 STOPLOG HOISTS, and 15300 JIB CRANE; and as shown on the drawings.

1.16 SITE 12 CONCRETE RAMP. Payment for the concrete pump ramp at Site 12 will be made at the optional contract lump sum price for "Site 12 Concrete Ramp", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the ramp and access road, including excavation, fill, formwork, reinforced concrete, drainage aggregate, culvert pipes, appurtenances, backfill, subgrade preparation, and other miscellaneous work, as specified in Sections 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02381 PUMP RAMPS, 02610 CULVERT PIPES, and 03308 CONCRETE; and as shown on the drawings.

1.17 COUNTY ROAD HH CONSTRUCTION. Payment for the construction of County Road HH from Station 300+13 to 313+80, will be made at the contract lump sum price for "County Road HH Construction", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the road, including excavation, dewatering, grading, fill, culverts, subgrade preparation, bituminous seal coat, cover and surface aggregate, and other miscellaneous work, as specified in Sections 02140 DEWATERING AND SURFACE WATER CONTROL, 02212 IMPERVIOUS EMBANKMENT, 02220 EXCAVATION, 02610 CULVERT PIPE, 02745 BITUMINOUS SURFACE TREATMENT, 02748 BITUMINOUS PRIME COAT, 02900 ESTABLISHMENT OF TURF, 15100 SLUICE GATE, and 15201 DUCKBILL CHECK VALVES; and as shown on the drawings.

1.18 SWAN LAKE SITES 2 AND 3 STOPLOG HOISTS. Payment for the modifications to the stoplog hoist systems and walkway additions at Swan Lake Sites 2 and 3 will be made at the contract lump sum price for "Swan Lake Site 2 and 3 Stoplog Hoists", which price and payment shall constitute full compensation for all costs associated with furnishing material, equipment and labor for constructing the modifications at Swan Lake Sites 2 and 3, including reinforced concrete, structural steel, grating, stoplog hoists, lifting beams, and appurtenances, as specified in Sections 00308 CONCRETE, 05101 METALWORK MATERIALS, FABRICATION, AND MISCELLANEOUS PROVISION, and 14629 STOPLOG HOISTS; and as shown on the drawings.

#### 1.19 SEEDING.

1.19.1 Measurement. Seeding will be measured for payment by the acre, and quantities will be determined from the plan area that is seeded.

1.19.2 Payment. Payment for seeding will be made at the contract unit price per acre for "Seeding", which price and payment shall constitute full compensation for all costs associated with establishing turf as specified herein, and as shown on the drawings.

1.20 PORTABLE FUEL TANK.

1.20.1 Measurement. Portable trailer mounted fuel tanks will be measured for payment by each, and quantities will be determined as specified in Section 15455 PORTABLE FUEL TANKS.

1.20.2 Payment. Payment for portable trailer mounted fuel tanks will be made at the contract item unit price per each for "Portable Fuel Tanks", which prices and payments shall constitute full compensation for all costs associated with furnishing, transporting, delivering and labor to provide the portable fuel tanks, as specified in Section 15455 PORTABLE FUEL TANKS.

1.21 PORTABLE HYDRAULIC POWER UNITS.

1.21.1 Measurement. Portable hydraulic power units will be measured for payment by each, and quantities will be determined as specified in Section 15100 SLUICE GATES.

1.21.2 Payment. Payment for portable hydraulic power unit will be made at the contract item unit price per each for "Portable Hydraulic Power Unit", which prices and payments shall constitute full compensation for all costs associated with furnishing, transporting, delivering and labor to provide the portable hydraulic power units, including hydraulic wrench for sluice gates as specified in Section 15100 SLUICE GATES.

1.22 DIESEL ENGINE PUMP DRIVE UNITS.

1.22.1 Measurement. Trailer mounted diesel engine pump drive units will be measured for payment by each, and quantities will be determined as specified in Section 15165 TRAILER MOUNTED DIESEL ENGINE PUMP DRIVE UNITS.

1.22.2 Payment. Payment for trailer mounted diesel engine pump drive units will be made at the contract item unit price per each for "Trailer Mounted Diesel Engine Pump Drive Unit", which prices and payments shall constitute full compensation for all costs associated with furnishing, transporting, delivering and labor to provide the trailer mounted diesel engine pump drive units, as specified in Section 15165 TRAILER MOUNTED DIESEL ENGINE PUMP DRIVE UNITS.

1.23 STONE MATERIALS.

1.23.1 Measurement. The stone materials, including Riprap, B-Stone; Riprap, C-Stone; crushed stone surface course; and crushed stone base course, will be measured for payment by the ton with final quantities rounded to the nearest whole ton.

1.23.1.1 Delivery by Barge. If delivered by barge, the Quality Assurance Representative will measure stone for payment, by weight determined from barge displacement. The Contractor shall furnish a list of barges to be used on this contract at the pre-construction conference. This will enable the Government to refer to the "Division Barge Displacement Tables" for updated tables. For any new barges to be utilized on this contract, the Contractor shall furnish with the barge displacement tables a drawing or sketch of each barge, dimension in sufficient detail to permit checking of the tables. The drawings shall show, as a minimum, the length, width, and depth of the barge and dimensions of the rake or rakes. Each such table shall have

its accuracy certified by a person or firm, other than the Contractor, customarily performing this service. Each table will be verified by the Government. Each table submitted shall show the name and/or number of the barge, the barge dimensions, the barge owner, the name of the fabricator, certification, and date of certification of the person or firm preparing the table. Barges may be field checked for current dimensions by the Quality Assurance Representative. Each table submitted shall contain, in parallel columns, the freeboard of the barge in feet and tenths from zero to the full depth of the barge, and the corresponding gross displacement to the nearest ton. Each barge shall be suitably marked with lines parallel to the barge deck, (4 inches wide and 1 foot long) painted on both sides of the barge at each corner near the rake bulkheads. The freeboard will be measured at the 4 corners before and after being unloaded and the average of these measurements shall be used to determine the displacement. The amount of displacement will determine the quantity delivered.

1.23.1.2 Delivery by Truck. If delivered by truck, stone material weight to be paid for will be determined from certified weight tickets which shall be furnished by the Contractor without additional cost to the Government. A certified weight ticket shall be defined as each truck being weighed empty, and again when loaded and the ticket, identified by the Contractor's name and the contract number, signed by the approved quarry representative with the statement "certified correct". This procedure shall be followed for each load hauled. The Contractor shall initial each ticket to verify the accuracy and completeness of each ticket before submitting it to the Government. The Contractor shall furnish certification stating the scales were tested and approved by the local authority.

1.23.2 Payment. Payment for stone materials will be made at the applicable contract unit prices per ton for "Riprap; B-Stone", "Riprap, C-Stone"; "Crushed Stone Surface Course"; and "Crushed Stone Base Course", which prices and payments shall constitute full compensation for all costs of furnishing, transporting and placing the stone materials required and for maintaining the work until acceptance as specified herein, and as shown on the drawings.

#### 1.24 BEDDING MATERIALS.

1.24.1 Measurement. The bedding material will be measured for payment by the ton with final quantities rounded to the nearest whole ton.

1.24.1.1 Delivery by Barge. If delivered by barge, the Quality Assurance Representative will measure stone for payment, by weight determined from barge displacement. The Contractor shall furnish a list of barges to be used on this contract at the pre-construction conference. This will enable the Government to refer to the "Division Barge Displacement Tables" for updated tables. For any new barges to be utilized on this contract, the Contractor shall furnish with the barge displacement tables a drawing or sketch of each barge, dimension in sufficient detail to permit checking of the tables. The drawings shall show, as a minimum, the length, width, and depth of the barge and dimensions of the rake or rakes. Each such table shall have its accuracy certified by a person or firm, other than the Contractor, customarily performing this service. Each table will be verified by the Government. Each table submitted shall show the name and/or number of the barge, the barge dimensions, the barge owner, the name of the fabricator, certification, and date of certification of the person or firm preparing the table. Barges may be field checked for current dimensions by the Quality

Assurance Representative. Each table submitted shall contain, in parallel columns, the freeboard of the barge in feet and tenths from zero to the full depth of the barge, and the corresponding gross displacement to the nearest ton. Each barge shall be suitably marked with lines parallel to the barge deck, (4 inches wide and 1 foot long) painted on both sides of the barge at each corner near the rake bulkheads. The freeboard will be measured at the 4 corners before and after being unloaded and the average of these measurements shall be used to determine the displacement. The amount of displacement will determine the quantity delivered.

1.24.1.2 Delivery by Truck. If delivered by truck, stone material weight to be paid for will be determined from certified weight tickets which shall be furnished by the Contractor without additional cost to the Government. A certified weight ticket shall be defined as each truck being weighed empty, and again when loaded and the ticket, identified by the Contractor's name and the contract number, signed by the approved quarry representative with the statement "certified correct". This procedure shall be followed for each load hauled. The Contractor shall initial each ticket to verify the accuracy and completeness of each ticket before submitting it to the Government. The Contractor shall furnish certification stating the scales were tested and approved by the local authority.

1.24.2 Payment. Payment for bedding material will be made at the applicable contract unit prices per ton for "Bedding Material", which prices and payments shall constitute full compensation for all costs of furnishing, transporting and placing the bedding material required and for maintaining the work until acceptance as specified herein, and as shown on the drawings.

1.25 GEOGRID.

1.25.1 Measurement. Geogrid will be measured by the square yard installed on the project. Overlapping areas will not be measured twice.

1.25.2 Payment. Payment will be made at the applicable contract unit price per square yard for "Geogrid", which prices and payments shall constitute full compensation for all costs associated with furnishing materials, equipment, and labor for the installation of geogrid, including grading, specified in Section 02375 GEOGRID SOIL REINFORCEMENT, and as shown on the drawings.

1.26 SILT FILTER FENCE.

1.26.1 Measurement. Silt filter fence will be measured by the linear foot installed on the project.

1.26.2 Payment. Payment will be made at the applicable contract unit price per linear foot for "Silt Filter Fence", which prices and payments shall constitute full compensation for all costs associated with furnishing materials, equipment, and labor for the installation of silt filter fence, including posts, fabric, connectors and trenching, in accordance with Section 01130 ENVIRONMENTAL PROTECTION and as shown on the drawings.

1.27 GEOTEXTILE.

1.27.1 Measurement. Geotextile will be measured by the plan area of geotextile installed on the project. Overlapping areas are not measured twice.

1.27.2 Payment. Payment will be made at the applicable contract unit price per square yard for "Geotextile", which prices and payments shall constitute full compensation for all costs associated with furnishing materials, equipment, and labor for the installation of geotextile specified herein, and as shown on the drawings. All incidentals shall be included in the unit price.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

01130.12

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SECTION 01130  
ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 APPLICABLE PUBLICATIONS. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

1.1.1 Code of Federal Regulations (CFR).

40 CFR 261 Identification and listing of Hazardous Waste

1.1.2 Engineering Manuals (EM).

EM 385-1-1 U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2 DEFINITIONS. Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of plant or animal communities; or degrade the environment from an aesthetic, cultural or historic perspective. Environmental protection is the prevention/control of pollution and habitat disruption that may occur during construction. The control of environmental pollution and damage requires consideration of air, water, land, biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive materials; and other pollutants.

1.3 SUBMITTALS. Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01300 - SUBMITTAL PROCEDURES:

1.3.1 Statements. Environmental Protection Plan; GA. Submit plan detailing Contractor's procedures for complying with all applicable environmental protection regulations and the special requirements of this contract.

1.4 ENVIRONMENTAL PROTECTION REQUIREMENTS. The Contractor shall comply with all applicable Federal, State, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction.

1.4.1 Protection of Features. This section supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. The Contractor shall prepare a list of features requiring protection under the provisions of the contract clause which are not specially identified on the drawings as environmental features requiring protection. The Contractor shall protect those environmental features specially on the

drawings, even if such preservation interferes with the Contractor's work under this contract.

1.4.2 Permits. This section supplements the Contractor's responsibility under the contract clause PERMITS AND RESPONSIBILITIES to the extent that the Government has already obtained environmental permits. A listing of the environmental permits is provided in SECTION 00800 - SPECIAL CLAUSES, Paragraph 3, Physical Data, and a copy of each permit will be provided at the preconstruction conference. The Contractor shall comply with the terms, and conditions of these permits. The Contractor shall also comply with other environmental commitments made by the Government.

1.4.3 Special Environmental Requirements. The Contractor shall comply with any special environmental requirements included at the end of this section. These special environmental requirements are an outgrowth of environmental commitments made by the Government during the project development.

1.4.4 Environmental Assessment of Contract Deviations. The Contract specifications have been prepared to comply with the special conditions and mitigation measures of an environmental nature which were established during the planning and development of this project. The Contractor is advised that deviations from the drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, alternate access routes, etc.) could result in the requirement for the Government to reanalyze the project from an environmental and cultural resources standpoint. The Contractor must obtain, at his expense, all necessary permits to use alternate sites including, but not limited to, Section 401 and Section 404 of the Clean Water Act, and coordination with the State Historic Preservation Officer regarding Section 106 of the National Historic Preservation Act. Deviations from the construction methods and procedures indicated by the plans and specifications which may have an environmental impact will require an extended review, processing, and approval time by the Government. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

1.5 ENVIRONMENTAL PROTECTION PLAN. Within 15 calendar days of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Government will consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan not later than 30 calendar days after receipt of the Notice to Proceed. The Contractor shall meet with representatives of the Contracting Officer to develop a mutual understanding relative to compliance with this section and administration of the environmental pollution control program. Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. The plan shall detail the actions which the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning

environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. The environmental protection plan shall include, but not be limited to, the following:

1.5.1 List of State and Local Laws and Regulations. The Contractor shall provide as part of the Environmental Protection Plan a list of all State and local environmental laws and regulations which apply to the construction operations under the Contract.

1.5.2 Spill Control Plan. The Contractor shall include as part of the environmental protection plan, a Spill Control Plan. The plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulated under State or local laws or regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

a. The name of the individual who will be responsible for implementing and supervising the containment and cleanup.

b. Training requirements for Contractor's personnel and methods of accomplishing the training.

c. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

d. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

e. The methods and procedures to be used for expeditious contaminant cleanup.

f. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

1.5.3 Recycling and Waste Minimization Plan. The Contractor shall submit a Recycling and Waste Minimization Plan as a part of the Environmental Protection Plan. The plan shall detail the Contractor's actions to comply with the following recycling and waste minimization requirements:

a. The Contractor shall participate in State and local Government sponsored recycling programs to reduce the volume of solid waste materials at

the source;

b. Recovery of metal from debris and sale to recycling operation with Contractor retaining any money derived from sale;

c. Collection of aluminum cans at the site for recycling.

1.5.4 Contaminant Prevention Plan. As a part of the Environmental Protection Plan, the Contractor shall prepare a contaminant prevention statement identifying potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, water, or ground. The Contractor shall detail provisions to be taken to meet Federal, State, and local laws and regulations regarding the storage and handling of these materials.

1.5.5 Storm Water Pollution Prevention Plan (SWPPP). As a part of the Environmental Protection Plan, the Contractor shall prepare a Storm Water Pollution Protection Plan to ensure the design, implementation, management, and maintenance of Best Management Practices (BMP) in order to reduce the amount of sediment and other pollutants in storm water discharges associated with the land disturbance activities; comply with the Water Quality Standards of the state in which the construction activities take place. The SWPPP also ensures compliance with the terms and conditions of the Land Disturbance Permit. Reference Section 00800 Special Clauses.

1.5.6 Environmental Monitoring. The Contractor shall include in the plan the details of environmental monitoring requirements under the laws and regulations and a description of how this monitoring will be accomplished.

## PART 2 PRODUCTS

2.1 SILT FILTER FENCING. Silt filter fencing shall comply with requirement of Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Article/Section 1080.02 SILT FILTER FENCE.

## PART 3 EXECUTION

### 3.1 SPECIAL ENVIRONMENTAL PROTECTION REQUIREMENTS.

3.1.1 Tree Protection. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized by the Contracting Officer. Where such special use is permitted, the Contractor shall provide effective protection to prevent damage to the trees and other land and vegetative resources. Unless specifically authorized by the Contracting Officer, no construction equipment or materials shall be placed or used within the dripline of trees shown on the drawings to be saved. No excavation or fill shall be permitted within the dripline of trees to be saved except as shown on the drawings.

### 3.1.2 U.S. Department of Agriculture (USDA) Quarantined Considerations.

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the USDA Plant Protection and Quarantine (USDA - PPQ) jurisdictional office for additional cleaning requirements that may be necessary.

3.1.3 Commercial Borrow. Prior to bringing commercially obtained borrow material onsite, the Contractor shall provide the Contracting Officer with the location of the borrow areas, the names of the owners and operators, and the types and estimated quantities of materials to be obtained from each source.

3.1.4 Disposal of Solid Wastes. Solid waste is rubbish, debris, waste materials, garbage, and other discarded solid materials (excluding clearing debris and hazardous waste as defined in following paragraphs). Solid waste shall be placed in containers and disposed of on a regular schedule. All handling and disposal shall be conducted in such a way as to prevent spillage and contamination. The Contractor shall transport all solid waste off site and dispose of it in compliance with Federal, State, and local requirements. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of the landfill area.

3.1.5 Clearing Debris. Clearing debris is trees, tree stumps, tree trimmings, and shrubs, and leaves, vegetative matter, excavated natural materials (e.g., dirt, sand, and rock), and demolition products (e.g., brick, concrete, glass, and metals).

a. The Contractor shall collect trees, tree stumps, tree trimmings, shrubs, leaves, and other vegetative matter; and shall dispose of in accordance with SECTION 02110-3.4. The Contractor shall segregate the matter where appropriate for proper disposal. Untreated and unpainted scrap lumber may be disposed of with this debris where appropriate.

b. Excavated natural materials shall be transported from the project site for proper disposal in compliance with Federal, State, and local requirements.

c. Demolition products shall be transported from the project site for proper disposal in compliance with Federal, State, and local requirements.

3.1.6 Disposal of Contractor Generated Hazardous Wastes. Hazardous wastes are hazardous substances as defined in 40 CFR 261, or as defined by applicable State and local regulations. Hazardous waste generated by construction activities shall be removed from the work area and be disposed of in compliance with Federal, State, and local requirements. The Contractor shall segregate hazardous waste from other materials and wastes, and shall protect it from the weather by placing it in a safe covered location; precautionary measures against accidental spillage such as berming or other appropriate measures shall be taken. Hazardous waste shall be removed from the project site within 60 days. Hazardous waste shall not be dumped onto the ground, into storm sewers or open water courses, or into the sanitary sewer system.

3.1.7 Fuels and Lubricants. Fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spills and evaporation. Lubricants and waste oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed of in accordance with Federal, State, and local laws and regulations.

3.1.8 Nuclear Density Meters. The Contractor shall adhere to the requirements of ER 385-1-80 when in possession of nuclear density meters.

### 3.2 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES.

3.2.1 Discovered Historic, Archaeological, and Cultural Resources. If during construction activities, items are observed that may have historic or archaeological value (e.g., Native American human remains or associated objects are discovered), such observations shall be reported immediately to the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall prevent its employees from trespassing on, removing, or otherwise disturbing such resources.

3.3 PROTECTION OF WATER RESOURCES. The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters.

3.3.1 Wastewater. Wastewater directly derived from concrete construction activities shall not be discharged before being treated to remove pollutants.

3.4 PROTECTION OF FISH AND WILDLIFE RESOURCES. The Contractor shall keep construction activities under surveillance, management and control to minimize interference with, disturbance to, and damage of, fish and wildlife.

3.5 PROTECTION OF AIR RESOURCES. Special management techniques as set out below shall be implemented to control air pollution by the construction activities. These techniques supplement the requirements of Federal, State, and local laws and regulations; and the safety requirements under this Contract. If any of the following techniques conflict with the requirements of Federal, State, or local laws or regulations, or safety requirements under this contract, then those requirements shall be followed in lieu of the following.

3.5.1 Particulates. Airborne particulates, including dust particles, from construction activities and processing and preparation of materials shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain all excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, disposal sites, borrow areas, and all other work areas free from airborne dust which would cause a hazard or nuisance.

### 3.5.2 Other Air Pollutants.

3.5.2.1 Hydrocarbons and Carbon Monoxide. Hydrocarbons and carbon monoxide emissions from equipment shall be controlled to Federal and State allowable limits at all times.

3.5.2.2 Odors. Odors shall be controlled at all times for all construction activities, processing and preparation of materials.

3.6 INSPECTION. If the Contracting Officer notifies the Contractor in writing of any observed noncompliance with contract requirements or Federal, State, or local laws, regulations, or permits, the Contractor shall inform the Contracting Officer of proposed corrective action and take such action to correct the noncompliance. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action is taken. No time extensions will be granted or costs or damages allowed to the Contractor for any such suspension.

3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES. The Contractor shall maintain all constructed pollution control facilities and portable pollution control devices for the duration of the Contract or for the length of time construction activities create the particular pollutant.

3.8 TRAINING OF CONTRACTOR PERSONNEL. Contractor personnel shall be trained in environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel monthly. The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, installation and care of facilities (vegetative covers, etc.), and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall also be discussed. Other items to be discussed shall include recognition and protection of archaeologic sites and artifacts.

### 3.9 EROSION CONTROL.

3.9.1 Unprotected Erodible Soils. Earthwork brought to final grade shall be finished as indicated. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Except in cases where the constructed feature obscures borrow areas, quarries, and waste material areas, these areas shall not initially be totally cleared. Clearing of such areas shall progress in reasonably sized increments as needed to use the developed areas as approved by the Contracting Officer.

3.9.2 Disturbed Areas. The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

a. Retardation and Control of Runoff. Runoff from the construction site or from storms shall be controlled, retarded, and diverted to protected drainage courses by means of diversion ditches, benches, berms, and by any measures required by area wide plans under the Clean Water Act.

b. Erosion and Sedimentation Control Devices. The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as indicated in the Contractor Environmental Protection Plan or as indicated on the drawings. Berms, dikes, drains, grassing, and mulching shall be maintained until permanent drainage and erosion control facilities are completed and operative.

3.9.3 Silt Filter Fence. Silt filter fence shall be installed in compliance with Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Article/Section 280.04 paragraph b - PERIMETER EROSION BARRIER.